School and human formation: an ever-postponed proposal

A escola e a formação humana: uma proposta sempre adiada

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# **Abstract**

The public school was born as an institution responsible for the common formation of citizens, for their insertion in the same culture, thus forming a nation. However, the victory of liberalism very early transformed this task into an instructional practice, relegating the body, the arts, and the human sensitivity to an accessory place in the school path. On the other hand, nowadays, the institution's monopoly over public education is threatened by the revolution in information and communication technologies, responsible for an overwhelming cultural transformation. With all these challenges, how could one think about school today? Would it be possible, given the individualism and immediacy of contemporary society, to think of its task as the practice of human formation? To answer these questions, this paper aims to analyze

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the historical moment that made possible the birth of cognitivism, its impacts on the idea of public school and how, along with the liberal project, it ignored the body in the process of human formation, reducing it to the simple task of instruction. Moreover, this work aims to make a critical exam of the employment of digital media in education, since it represents not only new possibilities for the school to revive the human formation ideal, but also new challenges to the public school project.

**Keywords**: Cognitivism. Humam formation. Philosophy of education. School.

### Resumo

A escola pública nasce como instituição responsável pela formação comum dos cidadãos por meio de sua inserção em uma mesma cultura, formando, assim, uma nação. No entanto, a vitória do liberalismo acabou por, já muito cedo, transformar essa tarefa numa prática de instrução, relegando o corpo, as artes e a sensibilidade humana a um lugar de acessório no trajeto escolar. Nos dias de hoje, o monopólio que a instituição tinha sobre a instrução pública se vê ameaçado pela revolução das tecnologias de comunicação e informação, responsável por uma avassaladora transformação cultural. Com todos esses desafios, como se poderia pensar na escola hoje? Seria possível, diante do individualismo e imediatismo da sociedade atual, pensar na sua tarefa como a prática de formação humana? Para responder essas questões, serão analisados o momento histórico que tornou possível o nascimento do cognitivismo, seu impacto na ideia de escola pública e como ele, junto do projeto liberal, ignorou o corpo no processo de formação humana, reduzindo a escola pública à simples tarefa da instrução. Além disso, o trabalho visa realizar um exame crítico do emprego das mídias digitais na educação, já que elas representam não apenas novas possibilidades para que a escola reviva o ideal de formação humana, mas também novos desafios para o projeto de escola pública.

**Palavras-chave**: Cognitivismo. Formação humana. Filosofia da educação. Escola.

# Introdution

How to think about public schools today? Those who intend to establish a long line of continuity between the distant past and the present, identifying scholé and school, spontaneous social practice and reflected and systematic activity, as well as socially shared function and assignment of a specific institution, will have no difficulty in understanding the modern public school as a bastion of unquestionable values that neoliberalism tries to destroy. The same applies to the ones, more numerous, who assimilate the public school to the community school of Protestant tradition. And, in that, they will be absolutely right. This socio-economic organization would not be characterized by the molding of subjectivities that C.B. MacPherson designated as "possessive individualism"<sup>3</sup>. In Brazil, the clearest illustration of this trend, although perhaps not the best, is the bill that, in the process of being voted in Congress, intends to liberate home education.

But those who think that the defense of public school will be deceived by the obsessive reiteration of their values and contributions, without criticizing their limits and, above all, without the necessary translation of their most essential principles to the requirements of today. From a certain point of view, these two conditions can even be met: for example, the experience of creating the first institution for

<sup>&</sup>lt;sup>3</sup> According to Étienne Balibar (2000), if the concept was not invented by MacPherson, in "The political theory of possessive individualism" of 1962, at least it was from there that it started to have the prominence that it gained next. The term "individualism" itself, as Balibar recalls, was coined at the beginning of the 19th century, with the pejorative sense that carried the idea of selfishness.

the common formation of citizens and, thus, of the French nation, resulted, by the virtue of the liberal victory, in the enthusiastic adherence to the powers of cognition. Consequently, it also resulted in the conversion of the educational task into instructional practice.

Due to this orientation and socialization, the development of body arts – aesthetic experience, gymnastics, dance, etc. – was often put in an accessory place, or simply complementary. The student's cognitive performance was the main objective by which the school started to be evaluated by society and families. *Capitalisme obliqe!* 

Now, from this Enlightenment role of diffusion of accumulated knowledge and from the mission of conjuring the rational majority of individuals, in a word, from the monopoly of public education, the school seems to have been inexorably dispossessed by information and communication technologies that are, today, responsible for an overwhelming cultural transformation of habits, beliefs, and values, especially of the youngest.

It could be objected that it is, however, up to the school to systematize this information and knowledge that, otherwise, would remain dispersed and often unusable; but would this challenge, which is to "construct meaning", be it in the order of instruction? Could it be tackled without looking at human formation, in its broadest sense? Certainly, the information and communication technologies bring new tasks to the school. But wouldn't they also inaugurate an invaluable opportunity to finally resume some of the values that the school has given over its history to triumphant capitalism?

There would undoubtedly be a lot to say about this opportunity, which, moreover, opens space for social movements of global scope that currently bring to the scene the importance of the body, the demand for a new cosmopolitanism and new solidarities, and the urgency of an etho-ecological care. However, it seems that the first step in rethinking the school under the aegis of the broader requirement of human formation is to identify cognitivism, its origins, its influence on the reflection and practice of modern education. As this work understands it, cognitivism is not just a way of conceiving the human: direct flowering of the capitalist humus, cognitivism starts to correspond to contempt for the body. The emphasis on intellectual performance is measured by the adequacy to the instituted and by the contributions to progress material, anthropological self-absorption, social hierarchy, contempt for other humans, predatory action on nature, and the rationalization of the most hidden dimensions of existence.

Now, despite its innumerable merits, the modern public school was, in many cases, and surely in the Brazilian experience, a great vehicle for the propagation of the cognitive ideology that certainly invaded the pedagogical textbooks at end of the last century, forming generations and generations of educators. Despite speeches to the contrary, it is not difficult to identify the survival of cognitivism, not only in the way society reduces the role of the public school to instruction<sup>4</sup>, or in the way the media exalts the teacher who has an infallible method of transmitting skill and knowledge, but in the very expectation placed on professors in relation to their performance, which they end up internalizing. It is necessary to agree that the idea of a common formation for the whole national territory soon implied a uniformity that made spontaneity and creativity impossible, leaving the rigidity of the serialization and the disciplinarization for cognitive molding. But how to escape this pattern without losing the vocation

<sup>4</sup> Undoubtedly, there goes the mark, in the country, of a Republic that never really broke with the Church or with its patriarchal traditions: a phrase commonly heard in the country determines the limits of each institution well: educates.

to participate in a democratic and common construction? If the answer does not depend on a single enlightened head thinking utopia alone, it is clear that the environment in which it can be elaborated depends, among other things, on the criticism of relentless cognitivism. That is why it is important to go back to its emergency.

# The reign of cognitivism

The reign of cognitivism, whether subliminal or subliminally present in current pedagogical theories and practices, results from the long process that started with the replacement of the old "philosophies of the spirit", by what Descombes dubbed "mentalism" in "The mind's provisions" (2001). Mentalism identifies the human spirit to a group of inner processes that make up the individual and is still capable of determining the meanings it will provide for external things. It is possible to fix its origin, roughly, in Descartes – who, seeking to study the inner determinations of being, dedicated himself to the investigation of the origin and organization of ideas – but it is certain that the movement reaches its maturity with Locke and the privilege that, from then on, Modernity began to grant to the study of the laws of functioning of the "mental states". For this "modern cognitivism", it is only as pure interiority, that is, only for itself that consciousness can manifest itself in a direct and transparent way, and that is how it reveals itself as the foundation for safe knowledge. Therefore, the phenomenon of consciousness is ensured by the autonomy of mental processes, which the philosophy of the spirit affirms when detaching them from the outside world.

Like the philosopher of the subject, the mentalist also believes that books – and signs in general – have a subordinate mental status: the book would contain neither language nor meaning if these things did not exist in someone's head. The attribute of mentality belongs first and foremost to what happens inside someone and only secondarily to what happens outside: words, gestures, and written signs. For such a philosopher, 'mental' is a synonym of 'intrinsically meaningful' precisely because this word refers to whatever it is inside us that allows a meaning to be attached to external things which are otherwise devoid of meaning, like the sounds of a voice or the traces of a pen on paper. In order to be intrinsically mental or meaningful, the phenomena of mind must be internal and not external. They must be sought inside people and not in the world (Descombes, 2001, p. 3).

In Modernity, consciousness becomes, therefore, the very expression of subjectivity. The association between consciousness and individual identity is introduced, directly related to the question of free will. If before, by virtue of the Greco-Roman tradition, consciousness was an activity of self-examination, an inner knowledge, it starts to designate a radical authenticity and the principle of individuality: consciousness becomes, for the first time, "[...] another name of the singular individual" (Balibar, 2000, p. 30, own translation)<sup>5</sup>. Becoming a principle of human identity, consciousness will correspond to a new, simplified and reduced perception of the human condition itself.

However, in addition to the philosophical event, it is also necessary to consider the enormous social and political implications involved in the modern concept of "consciousness", which translates the

<sup>&</sup>lt;sup>5</sup> In original: "[...] *l'autre nom d'un individu singulier*" (Balibar, 2000, p. 30).

rapid and violent transformation of an entire world and the construction of a new type of subjectivity from then on prevailing in Western society. It was not out of nowhere that Descartes placed at the center of his philosophy what is now called "consciousness", on the one hand relating certainty and individual experience (or thought), and, on the other, endowing inner experience, or reflection, with a sense of immediacy and transparency that he had never received before; it was a question of neutralizing the effects of uncertainty caused by the break with metaphysical thinking. The radical separation between soul and body marks the origin of the anthropological type of the "man of science", devoid of empirical particularities, of his social and historical roots, as well as of his psyche, which seeks secure knowledge, based on universal proof.

Nature itself, therefore, is nothing but a body. Such is, at least, the case with nature outside me. This same nature is, moreover, always at the same time 'outside of itself', so to speak, in the sense that all its parts are external to each other, *parts extra parts* – it is what we call space, or rather, 'extension'. There is a single matter, identical everywhere and perfectly homogeneous. Her knowledge can be clear and distinct, with the condition of reducing it to the universal laws of transmission and conservation of movement, which can be expressed mathematically as relationships between quantities: there is nothing in nature more than these bodies without mystery, no there are hierarchical souls, no hidden qualities, no purpose, nothing obscure or confused, that is, nothing that is not rationally thinkable (Wolff, 2012, p. 52, own tranlation)<sup>6</sup>.

This radical separation between the spiritual sense and the matter leads to the exaltation of the individual as the only one capable of attaining knowledge, since only he can be understood as the sum of immaterial and indescribable experiences, which are, by definition, the source of all possible significance. It is in this way, as a variation of the subject's philosophy, that mentalism will influence the modern school and the diverse educational experiences. The attention given to the operations of the mind – or of the intelligence – will be the main idea discussed in the pedagogical proposals produced from the dawn of Modernity on. These pedagogical proposals, in turn, often insist on the individual and particular character of cognitive discoveries, making the initial appeal to sensory experience a preparatory step, necessary but worthless, that ultimately serves to legitimize and lead to the ultimate goal of educational activity – the achievement of higher mental operations.

Cognitivism constitutes the belief that the spirit, obviously located "within" the subject, means nothing more than presence, understood as self-knowledge, direct, clear and evident knowledge of the representations or operations of the mind, in addition to, of course, the consequences of this belief. Thus, through cognitivism, a double reduction takes place, quite dangerous both for its scope and for its implications for education. Such an operation could be summed up in the following statement: for any experience of oneself to be defined as cognition (objective and scientific), first of all it is necessary to transform the different human dimensions into mental dimensions.

<sup>6</sup> In original: "A natureza em si mesma, portanto, não é senão corpo. Tal é, pelo menos, o caso da natureza fora de mim. Essa mesma natureza está, aliás, sempre ao mesmo tempo 'fora de si mesma', por assim dizer, no sentido de que todas as suas partes são exteriores umas às outras, partes extra partes – é o que chamamos espaço, ou antes, 'extensão'. Há uma única matéria, idêntica em toda parte e perfeitamente homogênea. O conhecimento dela pode ser claro e distinto, com a condição de reduzi-la às leis universais da transmissão e da conservação do movimento, que podem ser exprimidas matematicamente como relações entre grandezas: nada mais há na natureza do que esses corpos sem mistério, não há almas hierarquizadas, nada de qualidades ocultas, nada de finalidade, nada de obscuro ou confuso, isto é, nada que não seja reacionalmente pensável" (Wolff, 2012, p. 52).

This concern with objectivity did not exist in medieval times. Instead, there was a continuity between the physical and human worlds. Cosgrove (1988) argues that even in landscape painting it is possible to detect a search for objectivity. In the Middle Ages, the human body was important to the landscape. However, during the Renaissance there was a change, and with Albertini, in particular, human figures disappeared from the canvas. They then acquired the role of observers. For it was believed that as long as the human being remained inserted in Nature, he would not be able to be objective (Grün, 2006, p. 74, own tranlation).

Despite the contradictory and discordant aspects existing between Descartes' and Locke's thinking, it can be said that the latter contributed enormously to reinforcing the predominance of the rational condition, starting from the idea of reason as the unifying principle of human identity, converting it into a sort of calculator ratio. Published in 1690, his essay on human understanding is a great treatise dedicated to knowledge; its purpose, in its own words, is to investigate the origin, veracity and extent of human knowledge, its foundations and degrees of belief, opinion and assent. In positioning himself against monarchical absolutism, Locke defends political and religious "tolerance", as well as "freedom of consciousness", that is, the validity of knowledge imputed to individual consciousness. It is in this sense that he elaborates his criticisms of the theories of knowledge, which underlie dogmatic authority, among which is the principle of innatism.

His refutation of the doctrine of innate ideas starts from questioning the premise that ideas are imprinted in man regardless of his perception. This questioning leads him to maintain that thought is entirely identified with the consciousness of thought, that is, thinking consists in being aware of what one thinks. The next step is the empirical foundation of knowledge: what it accomplishes, by stating that nothing is found in human understanding that has not been in the senses before. According to Locke (1952, Il.xxvii.9), "[...] that consciousness, which is inseparable from thinking, and as it seems to me, essential to it [...] When we see, hear, smell, taste, feel, meditate, or will any thing, we know that we do so. Thus it is always as to our present sensations and perceptions".

Thus, the consciousness is the constitutive nucleus of its philosophy. For Locke, the mind is a set of operations that make ideas exist, and cognition is at the center of the definition of individual identity. This is how Locke ends up underestimating the issue of affections, desires and imagination, as he does not consider them adequate to a sure knowledge, formed by clear and distinct ideas. The same is true in relation to his own corporeality, which only interests him insofar as the sensations cause clear and distinct mental alterations, becoming material for thought.

[...] which [mental] operations, when the soul comes to reflect on and consider, do furnish the understanding with another set of ideas, which could not be had from things without. And such are *perception*, *thinking*, *doubting*, *believing*, *reasoning*, *knowing*, *willing*, and all the different actings of our own minds; - which we being conscious of, and observing in ourselves, do from these receive into our understandings as distinct

<sup>&</sup>lt;sup>7</sup> In original: "Esta preocupação com a objetividade não existia nos tempos medievais. Em vez disso, havia uma continuidade entre os mundos físico e humano. Cosgrove (1988) argumenta que até na pintura de paisagem é possível detectar uma busca pela objetividade. Na Idade Média, o corpo humano era importante para a paisagem. Entretanto, durante o Renascimento houve uma mudança, e com Albertini, em particular, as figuras humanas desapareceram das telas. Adquiriram então o papel de observadores. Pois se acreditava que desde que o ser humano permanecesse inserido na Natureza não seria capaz de ser objetivo" (Grün, 2006, p. 74).

ideas as we do from bodies affecting our senses. This source of ideas every man has wholly in himself; and though it be not sense, as having nothing to do with external objects, yet it is very like it, and might properly enough be called *internal sense*. But as I call the other sensation, so I call this reflection, the ideas it affords being such only as the mind gets by reflecting on its own operations within itself (Locke, 1952, II.i.4, author's emphasis).

Therefore, Locke establishes that the criterion for the validity of knowledge is the subject's inner experience, in its logical coherence, which, consequently, implies isolation from reality and society. The latter, then, presents itself only as the place of a naturally affirmed consensus, or even as the place of an irreducible opposition between the individual and social institutions. In establishing the conditions for safe knowledge, that is, for the possibility of truth within the subject, Locke reinforces the thesis that all certainty comes from individuality. Thus, the decision to isolate the human understanding from all issues related to its external conditions makes Locke an important ally in the foundation of the myth of neutrality, as well as in objectivity of scientific development.

However, cognitivism finds a formidable difficulty in dealing precisely with what is not allowed – at least not easily – and in being reduced to simple cognition, with what resists the conversion to that clear and evident knowledge that values modern science so much. Hence the inability to understand the different meanings that constitute human action. Cognitivism, therefore, initiates the estrangement in relation to action, which cannot be understood as anything other than an effect of a disposition of the mind and which has translated into the pedagogical vocabulary the double ordered theory/action, instruction/practice.

[...] the new mentalism transfers authorhood from the whole of the person to a part thereof. In this view, the production of a book, like any mental activity, consists in a set of mental processes by which representations are transformed or combined, without this being, strictly speaking, the action of a subject. Whether the philosophy is that of the structural unconscious or of the mind as a cognitive machine, the result is the same. The paradigmatic example of this in the French context has always been the production of a literary work: the book is often held to be written in virtue of mechanisms at work either above or below the level where people usually claim to locate their activity when they set themselves to writing (Descombes, 2001, p. 8).

The main source of the mentioned difficulties is, therefore, located in the determination of an ideal and pre-established guide for the practice of human beings; this happens since one of the assumptions of cognitivism is precisely the statement that it is possible to reduce this human practice to general laws, as are the general laws of the natural sciences. The possibility of explaining a person's voluntary act by means of general and objective rules, which were established before that act, leads to the notion that forces acting on him can be analyzed "from the outside", through social behavior. However, the Enlightenment heritage proposes that reason is precisely the force capable of taming the nefarious power of desires, vices, and ignorance. In other words, this heritage postulates that the practice of human formation must focus on the instruction of minds, the surest method for achieving emancipation.

## Final overthrow of human formation?

Many of the heavy criticisms directed against the public school today relate to the failure statistics measured by low performance and, above all, school dropout. In Brazil, about a quarter of children do not complete the nine-year cycle of so-called "elementary education", and half of young people do not reach the end of "basic education", which consists of another three years of "high school". This article has tried to demonstrate that reducing the task of the public school to simple instruction, in addition to being anachronistic, has heavy implications for the broader practice of human formation; however, it is impossible not to concede the reason that information and content are ways and means of contact with their own cultural values and with other cultures, as well as instruments that can be used to avoid heightening privileges and class differences. It is clear that, in this domain, creativity and intuition are not enough: the teaching of languages, the arts of the body, the different world artistic expressions, the geopolitical knowledge, are atouts of the dominant classes that open to the most favored horizons; the invisible will never be able to count with them if the current way of understanding school instruction does not change. Furthermore, in Brazil, the content has been reduced to its minimum expression every year, due to the difficulties that have accumulated over the years, but also due to the neglect with teachers training of teachers.

The aforementioned training also suffers from the vices of cognitivism: productivist emphasis on results, theory unrelated to experience, excessive idealism, training based on models, techniques, "ideal methods". There is personalism and naive attachment to romantic and idealistic formulas, which reality is in charge of denouncing. There is little room for initiative, little construction of the demand for creativity. The métier is disappointing, and demands from the fiercest a personal, psychic, physical, social sacrifice. One can and must praise the courage, dedication, brilliance and talent of those who survive with passion in this dangerous and demanding profession, but this generosity cannot be made a norm. The promotion of the profession was due to its ascension to a higher level career: almost all institutions of secondary education were extinguished, and the faculties of Pedagogy were multiplied, the majority by part of the private initiative. Soon, distance education courses came to dominate the training of Brazilian teachers. What could be an excellent initiative, as it would solve the problems of the secular lack of resources for education and of the country's continental dimensions, runs the risk of proving to be just an expedient to lower the costs of Pedagogy courses, characterized by shameful student/teacher proportions.

However, the experience of the rapid expansion of the *Educação a Distância* (EaD) in the country encouraged the private initiative and the political leaders – often playing a dual role – to imagine shifting to basic education the model already prevalent in higher education. With this advantage, the measure would open the door to the final internationalization of educational activities, an irresistible appeal to the large multinationals of "education".

In November 2019, the *Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira* (Inep, National Institute for Educational Studies and Research Anísio Teixeira) released an article in which it reveals that, for the first time, enrollment in distance education courses (50,2%) surpassed that of face-to-face courses (49,8%). From the percentage of distance education, the Pedagogy course stands out, being the one with the largest number of enrolled students, representing 12,9% of the Federal network and 23,4% of the Private network. In addition, of the ten courses with the most enrollments, eight are for teacher training (Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira, 2019).

Behold, the ever postponed mission of human formation, which connects to democracy, is definitely put aside, for, as Lévy (1999) put it, cyberculture is, in fact, the victory of the Lights.

However, before the final collapse, the sanitary hecatomb forced an improvised arrangement, which even had the support of many of those who until then had opposed resistance to the "facilitations" imposed by distance education. Under the aegis of the need for isolation imposed by the pandemic of Covid-19, the intensive use of information and communication technologies has replaced the presence at all school levels, creating in Brazil the multifaceted figure of "remote education". Paradoxically, this attempt to keep the public school functioning, in Brazil, exposed the limits of the project to migrate education to the virtual environment, defended by some enthusiasts of information and communication technologies <sup>10</sup>; starting from the firm belief in the powers of collective intelligence, such a project finds its first barrier in the very inequality generated by neoliberal society. The "remote education", seen by many as the solution for students from all over the country, whatever the region and the social class, not to "lose the year", ended up increasing inequality, turning even the already weakened public school into an even more excluding institution (Oliveira, 2020).

Even so, there are still those who, attached to the illusion of progress, believe that the solution to educational problems – infrastructure, lack of teachers, social pressures, violence in big cities – is the unrestricted adoption of more technology, which Morozov links directly with what he calls "simplistic epistemology of Silicon Valley". Such an epistemology tends to reduce all problems to a lack of information. In effect, the solution becomes very simple: it consists in the administration of more information, always more information (data). Furthermore:

Another problem with Silicon Valley's epistemology is that its worldview is strongly distorted by its business model. Faced with all the problems, Silicon Valley knows how to react only in two ways: by producing more 'computation' (or program codes) or by processing more 'information' (or data). The reaction is likely to be a combination of both, giving us yet another app for tracking calories, weather and traffic. These small successes allow Silicon Valley to redefine 'progress' as something that comes naturally from business plans. But while 'more computing' or 'more information' can be profitable private solutions to certain problems, they are not necessarily the most effective responses to complex and difficult public problems, stemming from deep institutional and structural causes (Morozov, 2018, p. 39, own translation)<sup>11</sup>.

Morozov exemplifies by highlighting the potential that cell phones are supposed to have in the fight against obesity. These portable communication devices today have sensors that monitor steps

This cannot be confused with the distance education modality. While distance education is a modality designed to work in the virtual environment, using numerous tools to perform the task of human training, remote education is only concerned with emulating a classroom in a virtual environment, taking the physical space of the classroom into the homes of students and teachers.

<sup>10</sup> As, for example, by that same Lévy, who, dealing more specifically with higher education, questions why the construction of new universities, buildings and centers is still considered, instead of developing "teleuniversities" and interactive, cooperative learning systems accessible in any part of the national territory and even from other nations, enabling the expansion of collective intelligence (Lévy, 1999, p. 189).

<sup>11</sup> In original: "Outro problema da epistemologia do Vale do Silício é que sua visão de mundo é fortemente distorcida por seu modelo de negócio. Diante de todos os problemas, o Vale do Silício sabe reagir apenas de duas maneiras: produzindo mais "computação" (ou códigos de programas) ou processando mais "informações" (ou dados). Provavelmente, a reação será uma combinação de ambos, dando-nos mais um aplicativo para rastrear calorias, clima e trânsito. Esses pequenos êxitos permitem que o Vale do Silício redefina "progresso" como algo que decorre naturalmente de planos de negócios. Mas, embora "mais computação" ou "mais informação" possam ser soluções privadas lucrativas para determinados problemas, não são necessariamente as respostas mais eficazes para problemas públicos complexos e difíceis, decorrentes de causas instituicionais e estruturais profundas" (Morozov, 2018, p. 39).

and, thus, can inform when a person walks more or less than ideally. In addition, combined with smart glasses, they can monitor diets, advising when not to overeat. The assumption, according to the author, is that individuals constantly make irrational decisions, which would be corrected by a constant flow and access to well-oriented information, made available at the most opportune time possible.

What is most interesting about this example is that the very definition of the problem – obesity, in this case – becomes absolutely neoliberal and banal, and should receive a purely cognitive solution. The tools available, coding and data, are not being used to actually solve the challenges, but to redefine them in the most convenient way. As Morozov (2018, p. 40, own traslation)<sup>12</sup> goes on to illustrate: "Perhaps, if you are poor, forced to have several jobs and not having a car to buy organic food in specialized markets, making low quality meals [...] is a perfectly rational decision: you get the food you can afford." In fact, what is the point, in this case, of receiving redundant information, about the precariousness of the value of the food that is being consumed? The issue is poverty, not lack of information.

A parallel with education can be attempted, with the advent of Massive Open Online Course (MOOCs) offered by the most diverse and renowned international higher education institutions to anyone who has access to the internet – and this from the unbridled expansion of distance education, and more recently, from remote education:

Everything is being digitized and connected – an absolutely natural phenomenon, if venture capitalists can be believed – and, given that, institutions can innovate dying. After connecting the world, Silicon Valley assured us that the magic of technology would naturally permeate every corner of our existence. According to this logic, opposing technological innovation is equivalent to giving up the ideals of the Enlightenment: Larry Page and Mark Zuckerberg would simply be the new Diderot and Voltaire, reincarnated in nerdy entrepreneurs. And then a very strange thing happened: somehow, we were convinced that the second type of disruption<sup>13</sup> had nothing to do with the first. Thus, the diffusion of MOOCs was narrated without any reference to the reduction of university budgets: no, the MOOC fever was just the natural result of Silicon Valley's innovative efforts – hackers who became entrepreneurs and 'broke' the consolidated structures of university education [...] (Morozov, 2018, p. 44, own traslation)<sup>14</sup>.

By hiding the existence of financial disruption, which makes it cheaper to offer knowledge, this technocentric framework – still the result of Modernity's aspirations – offers only a very superficial

<sup>12</sup> In original: "Talvez, caso você seja pobre, obrigado a ter vários empregos e não dispondo de um carro para comprar alimentos orgânicos em mercados especializados, fazer refeições de baixa qualidade [...] seja uma decisão perfeitamente racional: você obtém a comida que pode pagar" (Morozov, 2018, p. 40).

<sup>13</sup> Morozov mentions two types of disruption. The first, negative, originated in the global financial crisis (courtesy of Wall Street, says the author) that further reduced what remained of the welfare state, which almost extinguished the public sector. The few public services that survived were forced to turn to the public themselves to survive, as in the case of cultural institutions that survive through crowdfunding.

<sup>14</sup> In original: "Tudo está sendo digitalizado e conectado – um fenômeno absolutamente natural, caso se possa acreditar nos investidores de risco – e, diante disso, as instituições podem inovar o morrer. Depois de interligar o mundo, o Vale do Silício nos assegurou que a magia da tecnologia naturalmente permearia todos os cantos da nossa existência. Segundo essa lógica, opor-se à inovação tecnológica equivale a abrir mão dos ideais do lluminismo: Larry Page e Mark Zuckerberg seriam simplesmente os novos Diderot e Voltaire, reencarnados em empreendedores nerds. E então aconteceu uma coisa bem estranha: de algum modo, fomos convencidos de que o segundo tipo de disrupção não tinha nada a ver com o primeiro. Assim, a difusão dos MOOCs foi narrada sem nenhuma referência à redução dos orçamentos universitários: não, a febre dos MOOCs era apenas o resultado natural do empenho inovador do Vale do Silício – hackers que viraram empreendedores e 'romperam' as estruturas consolidadas do ensino universitário" (Morozov, 2018, p. 44).

explanation of reality and what led to it. For example, the expansion of distance education, which takes the public university away from large centers, often ignores the limitations imposed by the digital exclusion of the place where the presential support hub is being opened. And when social problems that should be solved to allow, in fact, access to education are ignored, any individual solution, however precarious it may be, will come to be seen not only as a personal resilience, but as an obligation of all those who, in fact, want to educate themselves. As Morozov (2018, p. 47, own traslation)<sup>15</sup> well illustrates:

Such technological disruptions originate in all fields, except technology. They are made possible by the political and economic crises that befall us, at the same time that their consequences profoundly affect the way we live and relate. It is very difficult to preserve values such as solidarity in a technological environment that thrives on the basis of personalization and unique and individual experiences.

Panacea was a Greek goddess who inspired the beautiful myth of a remedy for all the illnesses, and still seduces humans today. Of the multiple faces she incarnated, the most current is the one that manifests itself as technology. But, as always, it is a dangerous mirage, born from the attempt to find simple and immediate answers to very complex problems, which require patience and investment: this is the case with the human time of formation. Furthermore, cyberculture enthusiasts do not seem to be so interested in the phenomenon of fake news, the invasion of the privacy of innocent victims, the sale of data and personal information stolen by hackers and large corporations.

More important for the present reflection, however, is that the total conversion of education to digital media means the abolition of the presence, the body, and the communication of the senses and implies the deepening of individualism and self-absorption, crude pragmatism and immediacy, which characterize neoliberal society. It remains evident that there is no common construction and, therefore, no public school where the values of solidarity and openness to the other are not made social demands. But how to invent them in the daily practice, how to experience them, being present to others, embodying the world shared with other beings, without an attentive human formation, which will absolutely refuse the reductions that teachers and students are subjected to today?

### Contributors

Both authors contributed substantially at the stages of conception and design, analysis and interpretation of data and discussion of the results and revision of the final version of the article

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<sup>15</sup> In original: "Tais rupturas tecnológicas têm origem em todos os campos, menos na tecnologia. Elas são viabilizadas pelas crises políticas e econômicas que se abatem sobre nós, ao mesmo tempo que suas consequências afetam profundamente a forma como vivemos e nos relacionamos. É muito difícil preservar valores como solidariedade num ambiente tecnológico que prospera com base na personalização e em experiências únicas e individuais" (Morozov, 2018, p. 47).

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